

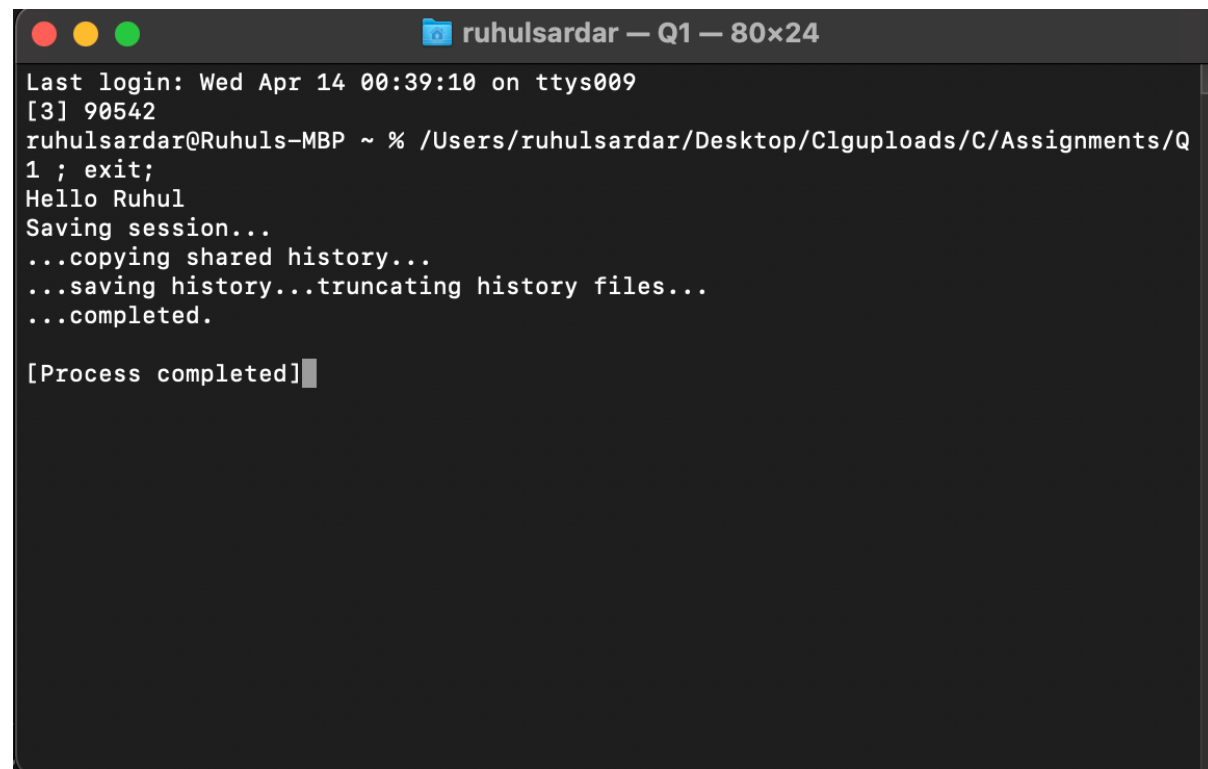
Q1. WACP to print a message on the screen.

```
#include<stdio.h>

int main(){
    printf("Hello Ruhul");

    return 0;
}
```

Output Screen:

A screenshot of a macOS terminal window titled "ruhulsardar — Q1 — 80x24". The terminal shows the output of a C program. The first line is "Last login: Wed Apr 14 00:39:10 on ttys009". The second line is "[3] 90542". The third line is "ruhulsardar@Ruhuls-MBP ~ % /Users/ruhulsardar/Desktop/Clguploads/C/Assignments/Q1 ; exit;". The fourth line is "Hello Ruhul". The fifth line is "Saving session...". The sixth line is "...copying shared history...". The seventh line is "...saving history...truncating history files...". The eighth line is "...completed.". The ninth line is "[Process completed]".

```
Last login: Wed Apr 14 00:39:10 on ttys009
[3] 90542
ruhulsardar@Ruhuls-MBP ~ % /Users/ruhulsardar/Desktop/Clguploads/C/Assignments/Q1 ; exit;
Hello Ruhul
Saving session...
...copying shared history...
...saving history...truncating history files...
...completed.

[Process completed]
```

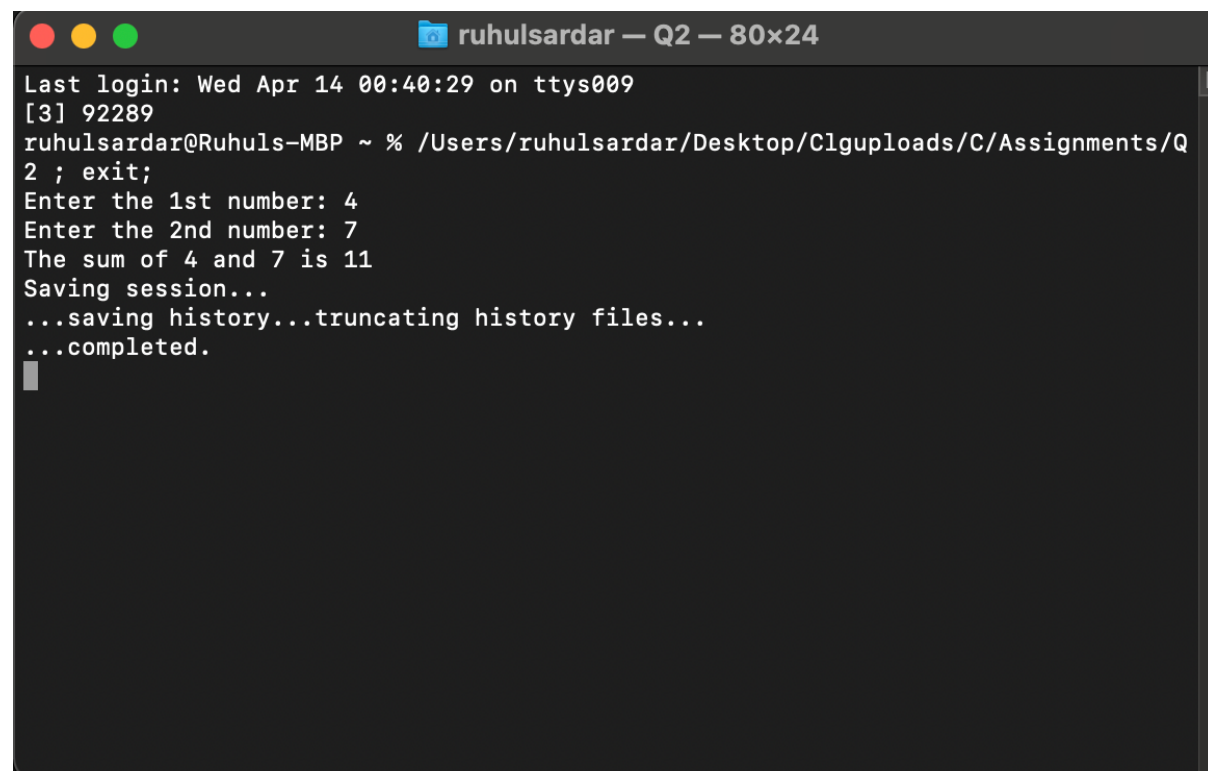
Q2. WACP to add two numbers.

```
#include<stdio.h>

int main(){
int a, b, c;
printf("Enter the 1st number: ");
scanf("%d", &a);
printf("Enter the 2nd number: ");
scanf("%d", &b);
c = a + b;
printf("The sum of %d and %d is %d", a,b,c);

return 0;
}
```

Output Screen:

A terminal window titled "ruhulsardar — Q2 — 80x24" with standard macOS window controls (red, yellow, green buttons). The terminal output shows the program's execution: the user logs in on Wed Apr 14 at 00:40:29, the prompt is [3] 92289, the user is ruhulsardar@Ruhuls-MBP, and the current directory is ~/Desktop/Clguploads/C/Assignments/Q2. The program prompts for two numbers, 4 and 7, and outputs their sum as 11. It then saves the session and truncates history files.

```
ruhulsardar — Q2 — 80x24
Last login: Wed Apr 14 00:40:29 on ttys009
[3] 92289
ruhulsardar@Ruhuls-MBP ~ % /Users/ruhulsardar/Desktop/Clguploads/C/Assignments/Q
2 ; exit;
Enter the 1st number: 4
Enter the 2nd number: 7
The sum of 4 and 7 is 11
Saving session...
...saving history...truncating history files...
...completed.
```

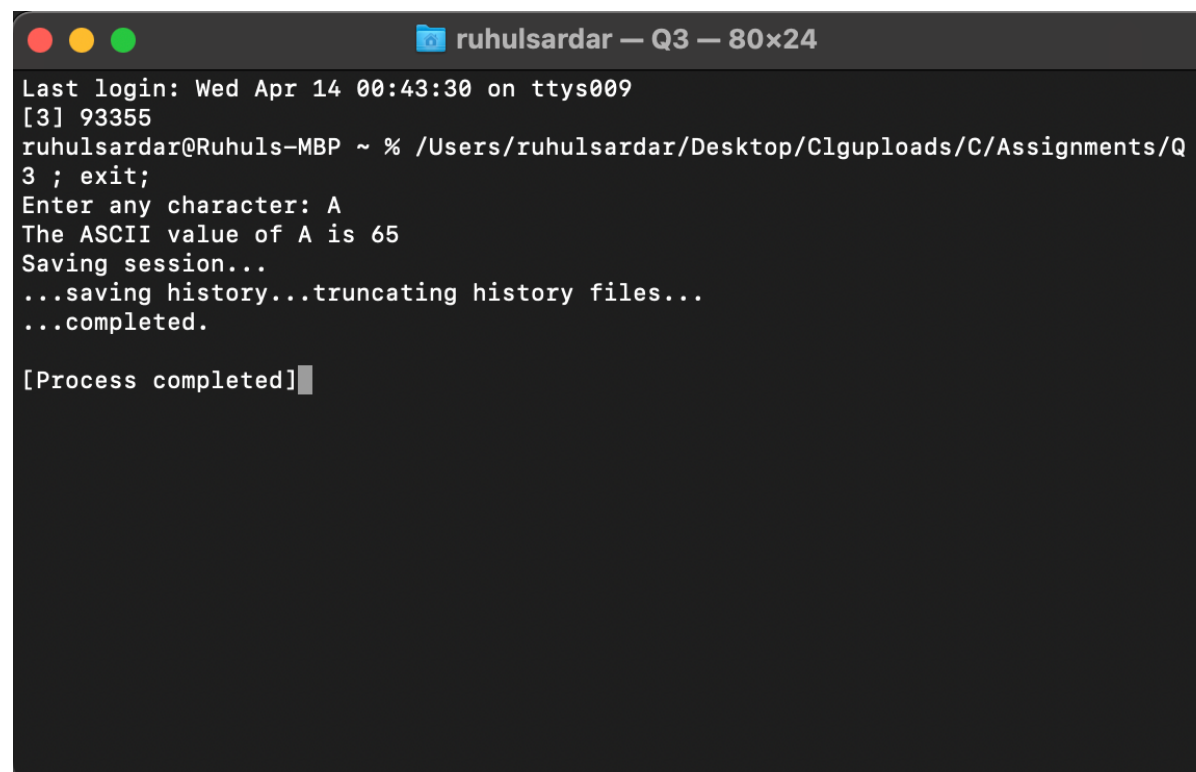
Q3. WACP to read a character and print its ASCII value.

```
#include <stdio.h>

int main(){
char ch;
printf("Enter any character: ");
scanf("%c", &ch);
printf("The ASCII value of %c is %d", ch, ch);

return 0;
}
```

Output Screen:

A terminal window titled "ruhulsardar — Q3 — 80x24" with standard macOS window controls (red, yellow, green buttons). The terminal output shows the program's execution: it logs the last login time, displays the prompt [3] 93355, shows the user's current directory, and then prompts for a character. The user enters 'A', and the program outputs "The ASCII value of A is 65". It then saves the session history and displays "[Process completed]" with a cursor.

```
ruhulsardar — Q3 — 80x24
Last login: Wed Apr 14 00:43:30 on ttys009
[3] 93355
ruhulsardar@Ruhuls-MBP ~ % /Users/ruhulsardar/Desktop/Clguploads/C/Assignments/Q
3 ; exit;
Enter any character: A
The ASCII value of A is 65
Saving session...
...saving history...truncating history files...
...completed.

[Process completed]
```

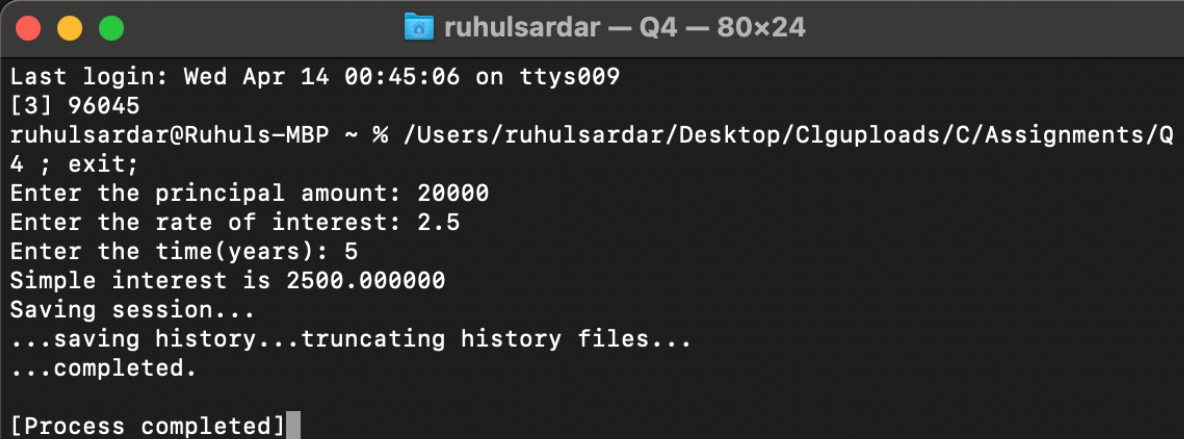
Q4. WACP to calculate simple interest.

```
#include <stdio.h>

int main(){
int p, t;
float r, SI;
printf("Enter the principal amount: ");
scanf("%d", &p);
printf("Enter the rate of interest: ");
scanf("%f", &r);
printf("Enter the time(years): ");
scanf("%d", &t);
SI = (p * r * t)/100;
printf("Simple interest is %f", SI);

    return 0;
}
```

Output Screen:



The image shows a terminal window titled "ruhulsardar — Q4 — 80x24". The terminal output is as follows:

```
Last login: Wed Apr 14 00:45:06 on ttys009
[3] 96045
ruhulsardar@Ruhuls-MBP ~ % /Users/ruhulsardar/Desktop/Clguploads/C/Assignments/Q
4 ; exit;
Enter the principal amount: 20000
Enter the rate of interest: 2.5
Enter the time(years): 5
Simple interest is 2500.000000
Saving session...
...saving history...truncating history files...
...completed.

[Process completed]
```

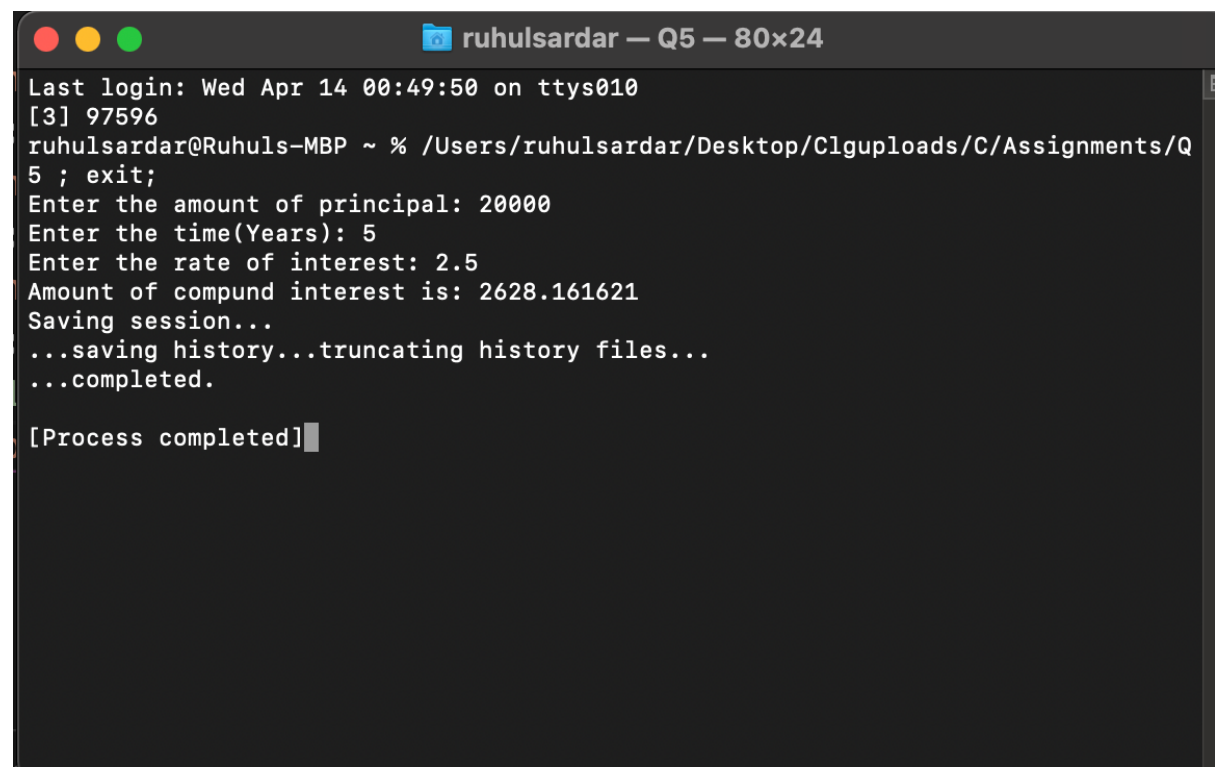
Q5. WACP to calculate compound interest.

```
#include<stdio.h>
#include<math.h>

int main(){
    int p, n;
    float r, CI;
    printf("Enter the amount of principal: ");
    scanf("%d", &p);
    printf("Enter the time(Years): ");
    scanf("%d", &n);
    printf("Enter the rate of interest: ");
    scanf("%f", &r);
    CI = (p*(pow((1 + r/100), n) - 1 ));
    printf("Amount of compund interest is: %f ", CI);

    return 0;
}
```

Output Screen:

A screenshot of a terminal window titled "ruhulsardar — Q5 — 80x24". The terminal shows the execution of a C program. It starts with a login message: "Last login: Wed Apr 14 00:49:50 on ttys010". The user enters a password "[3] 97596". The prompt shows the user's location: "ruhulsardar@Ruhuls-MBP ~ %". The user runs the program, and the output is as follows: "Enter the amount of principal: 20000", "Enter the time(Years): 5", "Enter the rate of interest: 2.5", and "Amount of compund interest is: 2628.161621". The program then prints "Saving session...", "...saving history...truncating history files...", and "...completed.". The terminal ends with "[Process completed]".

```
ruhulsardar — Q5 — 80x24
Last login: Wed Apr 14 00:49:50 on ttys010
[3] 97596
ruhulsardar@Ruhuls-MBP ~ % /Users/ruhulsardar/Desktop/Clguploads/C/Assignments/Q
5 ; exit;
Enter the amount of principal: 20000
Enter the time(Years): 5
Enter the rate of interest: 2.5
Amount of compund interest is: 2628.161621
Saving session...
...saving history...truncating history files...
...completed.

[Process completed]
```

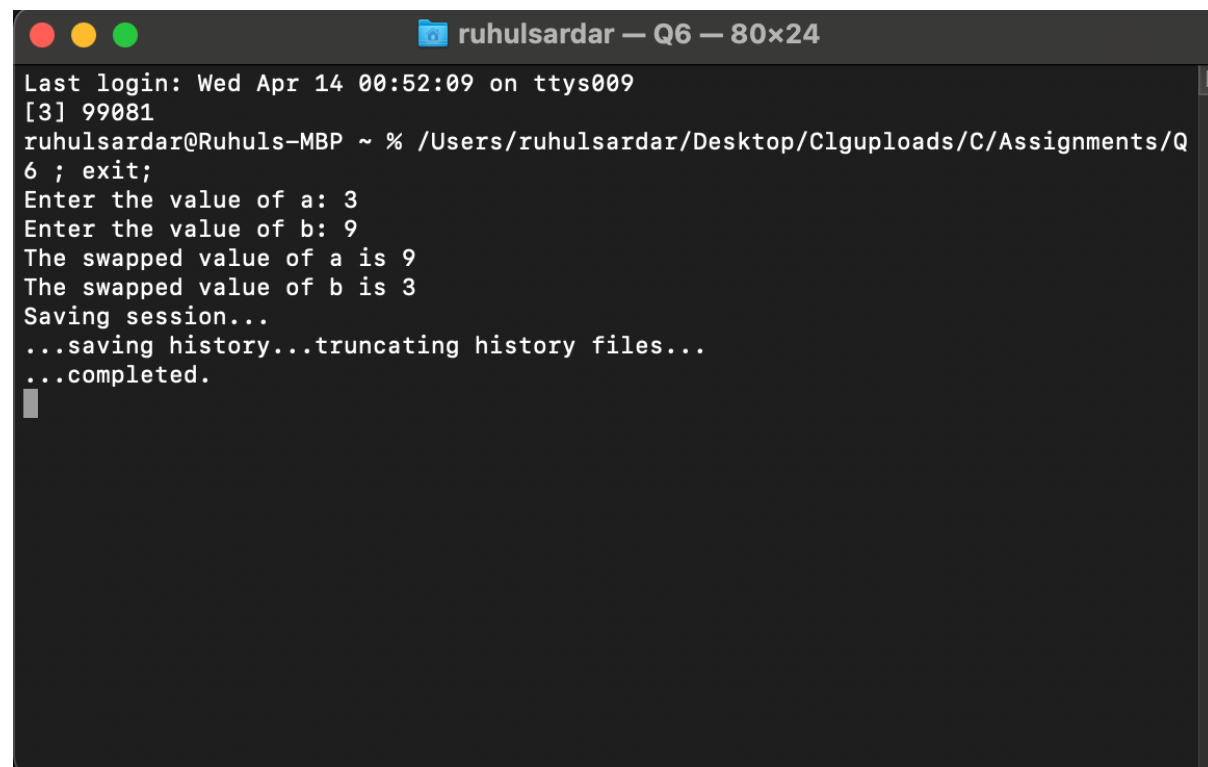
Q6. WACP to swap two integer numbers without using any 3rd variable.

```
#include<stdio.h>

int main(){
    int a, b;
    printf("Enter the value of a: ");
    scanf("%d", &a);
    printf("Enter the value of b: ");
    scanf("%d", &b);
    a = a + b;
    b = a - b;
    a = a - b;
    printf("The swapped value of a is %d", a);
    printf("\nThe swapped value of b is %d", b);

    return 0;
}
```

Output Screen:

A screenshot of a terminal window titled "ruhulsardar — Q6 — 80x24". The terminal shows the execution of a C program. It starts with a login message: "Last login: Wed Apr 14 00:52:09 on ttys009". The prompt is "[3] 99081". The user is "ruhulsardar@Ruhuls-MBP" and the current directory is "~ % /Users/ruhulsardar/Desktop/Clguploads/C/Assignments/Q6". The program prompts for the value of 'a' (3) and 'b' (9), then prints the swapped values: 'a' is 9 and 'b' is 3. It ends with "Saving session..." and "...saving history...truncating history files..." followed by "...completed." and a cursor.

```
ruhulsardar — Q6 — 80x24
Last login: Wed Apr 14 00:52:09 on ttys009
[3] 99081
ruhulsardar@Ruhuls-MBP ~ % /Users/ruhulsardar/Desktop/Clguploads/C/Assignments/Q6 ; exit;
Enter the value of a: 3
Enter the value of b: 9
The swapped value of a is 9
The swapped value of b is 3
Saving session...
...saving history...truncating history files...
...completed.
█
```

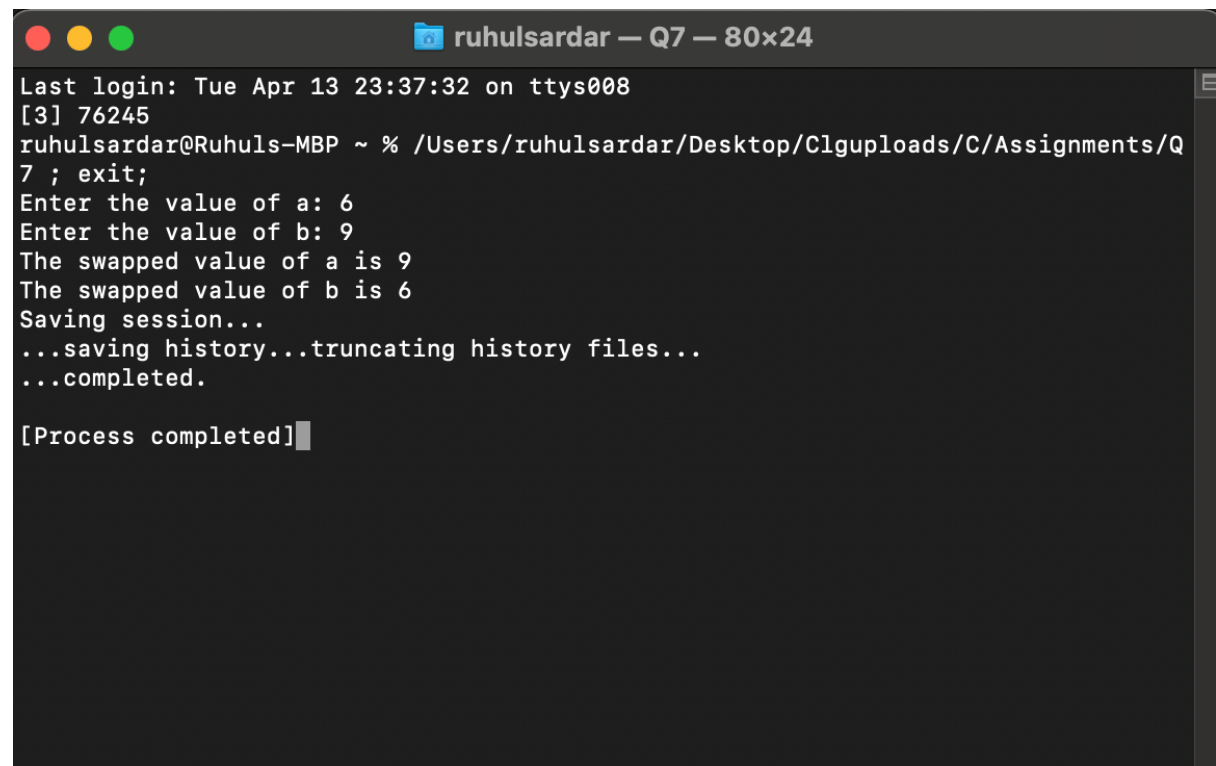
Q7. WACP to swap two integer numbers using 3rd variable.

```
#include<stdio.h>

int main(){
    int a, b, c;
    printf("Enter the value of a: ");
    scanf("%d", &a);
    printf("Enter the value of b: ");
    scanf("%d", &b);
    c = a;
    a = b;
    b = c;
    printf("The swapped value of a is %d", a);
    printf("\nThe swapped value of b is %d\n", b);

    return 0;
}
```

Output Screen:

A screenshot of a terminal window titled "ruhulsardar — Q7 — 80x24". The terminal shows the execution of a C program. It starts with a login message: "Last login: Tue Apr 13 23:37:32 on ttys008". The prompt is "[3] 76245". The user enters the command "ruhulsardar@Ruhuls-MBP ~ % /Users/ruhulsardar/Desktop/Clguploads/C/Assignments/Q7 ; exit;". The program prompts for "Enter the value of a: 6" and "Enter the value of b: 9". It then outputs "The swapped value of a is 9" and "The swapped value of b is 6". The terminal also shows "Saving session...", "...saving history...truncating history files...", and "...completed.". The prompt "[Process completed]" is shown at the end.

```
ruhulsardar — Q7 — 80x24
Last login: Tue Apr 13 23:37:32 on ttys008
[3] 76245
ruhulsardar@Ruhuls-MBP ~ % /Users/ruhulsardar/Desktop/Clguploads/C/Assignments/Q7 ; exit;
Enter the value of a: 6
Enter the value of b: 9
The swapped value of a is 9
The swapped value of b is 6
Saving session...
...saving history...truncating history files...
...completed.

[Process completed]
```

Q8. WACP to find the area and circumference of a circle.

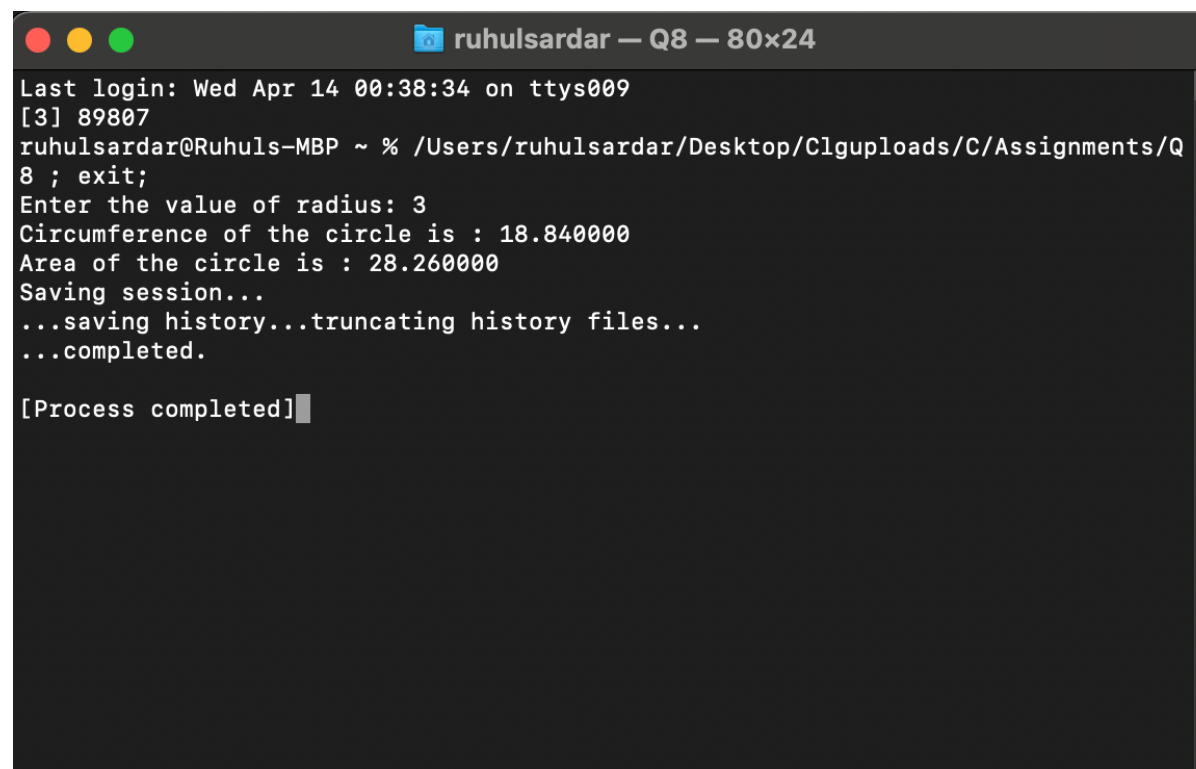
```
#include <stdio.h>

#define PI 3.14

int main(){
    float area, circumference;
    int r;
    printf("Enter the value of radius: ");
    scanf("%d", &r);
    circumference = 2 * PI * r;
    area = PI * r * r;
    printf("Circumference of the circle is : %f ", circumference);
    printf("\nArea of the circle is : %f ", area);

    return 0;
}
```

Output Screen:



```
ruhulsardar — Q8 — 80x24
Last login: Wed Apr 14 00:38:34 on ttys009
[3] 89807
ruhulsardar@Ruhuls-MBP ~ % /Users/ruhulsardar/Desktop/Clguploads/C/Assignments/Q
8 ; exit;
Enter the value of radius: 3
Circumference of the circle is : 18.840000
Area of the circle is : 28.260000
Saving session...
...saving history...truncating history files...
...completed.

[Process completed]
```